

SUNDERHAUF, Frantisek, inz.

Determining the heating value of coal used in power plants
for establishment of the price of fuels. Energetica Gz 13
no.11:576-580 N'63.

1. Ustav pro vyzkum paliv, Bechovice.

L 44100-66

ACC NR: AP6009354 (A,N) SOURCE CODE: CZ/0078/65/000/011/0016/0016

AUTHOR: Sunderhauf, Frantisek (Engineer; Prague); Umlasek, Josef
(Engineer; Slapanice u Brna)

ORG: none

TITLE: Tubular wall for combustion chambers and boilers. CZ Pat.
No. PV 803-63

SOURCE: Vynalezy, no. 11, 1965, 16

TOPIC TAGS: combustion chamber, engine cooling system, ~~_____~~

ABSTRACT: An Author Certificate has been issued for a gastight, tubular, panel wall designed for combustion chambers or boilers cooled by circulating water. It consists of tubes connected by special strips. The strips are bent parallel to the axes of the tubes and have protrusions which are perpendicular to the axes.

[KP]

SUB CODE: 21/ SUBM DATE: 13Feb63/

Card 1/1 *LC*

SUNDETOV, A.Zh.; ABAKOV, I.M.

Experience in the detection of malignant neoplasms. Trudy
Inst. klin. i eksp. khir. AN Kazakh. SSR 8:19-20 '62.
(MIRA 17:7)

SUMDETUV, U.D., inzh.

Gas control in coal mines in the Karaganda Basin. Bezop. truda v
prom. 4 no.11:10-11 N '60. (MIRA 13:11)

1. Gosgortekhnadzor Kazakhskoy SSR.
(Karaganda Basin--Mine gases)

ZUMEL, S.

Some problems of the epidemiology and prophylaxis of hepatitis
in the Mongolian People's Republic. Vop.med.virus. no.9:136-
(MIRA 18:4)
142 '64.

I. Zaveduyashchiy kafedroy propagitiki vnutrennikh bolezney
Mongol'skogo gosudarstvennogo meditsinskogo instituta.

ACC-NR: AT9032524

(1)

SOURCE CODE: UR/0413/66/000/017/0119/0119

ПАВЛОР: Локштн, А. Л.; Мал'тсев, В. П.; Сундевер, В. К.

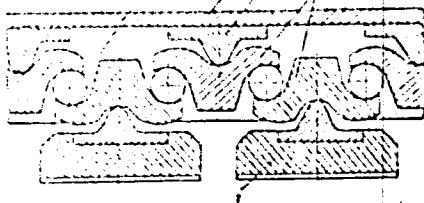
ORG: none

TITLE: Tarust bearing. Class 47. No. 185635 [announced by Kaluga Turbine Plant (Kaluzhskiy turbinnyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 119

TOPIC TAGS: gas turbine, steam turbine, turbine bearing, turbine design, antifriction bearing, thrust bearing
ABSTRACT: The proposed thrust bearing for turbomachines, such as steam or gas turbines, contains a ring having rigidly fixed supports and pivoting, self-aligning

Fig. 1. Thrust bearing



1 - Ring; 2 - supports; 3 - supporting blocks; 4 - balancers; 5 - balls.

Card 1/2

UDC: 621.165+621.433-233.23

ACC NR: AP6032524

ACC NR: AP6032524
APPROVED FOR RELEASE: 08/26/2000 61A-RDP86-00513R001653920007-8
supersede the original and a double-row system of interconnected balancers, resting both on the rigid supports and on pivoting support blocks. The bearing has a high degree of reliability and supporting capacity, the supports and the supporting blocks have ribs, serving as pivoting axes for all moving parts of the bearing. Bails are placed between the balancers; the contact points of these balls are in a straight line with the balancer, perpendicular to the pivoting axis of the balancer and pass through the axis or below it (see Fig. 1). Orig. art. has: 1 figure.

SUB CODE: /3,21/ SUBM DATE: 25Jan65/

Card 2/2

SUNDIKOV, B.I., inzh.

Laying earth roadbeds in ever-frozen grounds. Avt.dor.
25 no.4:8-9 Ap '62. (MIRA 15:5)
(Road construction) (Frozen ground)

GRUNTSKOV, B. I., Inst.

Road construction with a precast concrete pavement. Avt. dor.
(MIRA 17:12)
27 nov. 7:16 '64.

SUNDIYEV, N.P., inzh.

Automatic cutoff of the electric motor in case of phase break.
Khol.tekh. 39 no.6:56 N-D '62. (MIRA 15:12)
(Electric motors—Safety appliances)

SUNDIYN BALDAN

Excretion of some nitrogen substances by abomasum glands of
sheep during various periods of pregnancy and lactation.
Izv. AN Kazakh. SSR. Ser. biol. nauk 2 no.6:53-57 N-D '64.

(MIRA 18:3)

DORDEVIC, Slobodan; SUNDICA, Zdravko

Sanitary conditions in Dubrovnik and improvements proposed by Vlaho Stulli to Marshal Marmont in 1808. Srpski arh. celok. lek. 89 no.10: 1225-1231 0 '61.

(HISTORY OF MEDICINE)

S

SUNDUKOV, A.

Scientific work of students. Nauka i pered. op. v. sel'khoz. 8
no. 7:77-79 J1 '58. (MIRA 11:8)
(Agricultural research)

SUNDUKOV, A.T.

Practices of reclaiming saline soils in an area with good
drainage. Trudy AN Tadzh.SSR 78:39-48 '57.
(MIRA 13:3)
(Vakhsh Valley--Alkali lands)

SUNDUKOV, I. N. and PREDVODITILEV, A. S., Dr. Sci., Cor.Mbr.AS USSR

"The Problems of Combustion and Flame Front Spreading in Two-Phase Mixtures (Liquid Fuel + Air)," a paper presented at the 6th International Conference on Combustion, New Haven, 19-24 August 1956

Inst. of ⁴nergetics, Moscow, AS USSR

A-52806, 9 Jul 56

POPKOV, V.I., otv.red.; VINTER, A.V., akademik, red. [decensed]; VEITS, V.I., red.; PREDVODITELEV, A.S., red.; STYRIKOVICH, M.A., red.; CHUKHANOV, B.P., red.; BOGDANOVA, N.B., kand.tekhn.nauk, red.; KOZLOV, B.K., kand.tekhn.nauk, red.; LEBEDEV, M.M., kand.tekhn. nauk, red.; SUNDUKOV, I.N., kand.tekhn.nauk, red.; ANTRUSHIN, B.D., red.izd-va; DUBKOV, P.V., red.izd-va; ZUBKOV, P.I., red. izd-va; MOYZHES, S.M., red.izd-va; PRUSAKOVA, T.A., tekhn.red.

[Problems of power engineering; symposium dedicated to Academician G.M.Krzhizhanovskii] Problemy energetiki; sbornik posviashchatsia akademiku G.M.Krzhizhanovskomu. Moskva, 1959. 851 p.

(MIRA 12:12)

1. Akademiya nauk SSSR. Energeticheskiy institut. 2. Chleny-korrespondenty AN SSSR (for Popkov, Veyts, Predvoditelev, Styrikovich, Chukhanov).

(Power engineering)

PLATE I CCC REPORTS

NOV/3/201

26(6)

Abdul'yev, N.M. *Supersonic Combustion in Various Technologies*. Sov. At. Energetika i Fizika, Sov. Akademy Nauk, Moscow, Izd. v A.S. SSSR, 1959. 172 p. Errata slip inserted. Original printed.

Argy, S.M. *Adv. of Propulsion, Corresponding Member, USSR Academy of Sciences, Ed. of Publishing House: Akad. Nauk SSSR, Tashkent, U.S.S.R.*

REMARKS: The book is intended for physico-chemical and mechanics in various technologies, interested in gas dynamics, combustion physics and related fields.

CONTENTS: This collection of articles represents the first attempt of the laboratory to investigate experimental wave flow processes of combustion and detonation. The collection consists of 12 articles by personnel of the Institute of Combustion and Detonation, Academy of Sciences, USSR, with trust the following aspects of combustion: 1) the influence of combustion conditions on the characteristics of gas mixture; 2) the influence of combustion on the flow on the combustion process of gases mixture; 3) theoretical investigations of laminar-turbulent in hydrodynamic theory of combustion and explosion, and the methods of kinetic, statistical and chemical description of these processes. The author states that these articles have been obtained for separation from a whole of several thousand experimental data characterized by the greatest variety of various parameters. These criteria apparently offer a new foundation to the kinetic and statistical (compatibility) conditions of wave motion of detonation and provide their generalization for the case of varying characteristics of source or other physical quantities of an explosive wave front. No publications are mentioned. References accompany each article.

PRUDEN, V.I. <i>Some Properties of Supersonic Flows</i>	69
REMY, V.P. <i>Supersonic Flow in the Region of an Angular Baffle</i>	73
REMY, V.P. <i>Supersonic Flows Under Conditions of Propagation in Shaped Nozzles During a Change of Reynolds Number</i>	84
SATKHOVA, T.V. and LEROV-YEV, Z.S. <i>Method of Measuring the Field of Detonation of Three-Dimensional Objects with the Aid of the Polar Method</i>	98
SATKHOVA, T.V. and LEROV-YEV, Z.S. and PRUDEN, V.I. <i>Experimental Investigation of the Field of Detonation of a Three-Dimensional Supersonic Stream</i>	99
SATKHOVA, T.V. <i>Measuring the Temperature of High Speed Gas Flow With the Aid of a Metric couple</i>	99
SHABAN, I.-I. and VOL'FSON, S.A. and SUDAROV, I.-E. <i>Irregularities in the Formation of a Flame Front in a Free Stream</i>	105
COL'VICHENKO, S.M., RUDOVICH, I.M. and FEITTE, J.-M. <i>Investigation of the Combustion Process Behind a Flame Front in Turbulent Flow</i>	114
COL'VICHENKO, S.M. and VOL'FSON, S.A. <i>Investigation of the Propagation Process of a Turbulent Flame Front at High Speeds of the Flow</i>	114

SUNDUKOV, I. N. and CHEKALIN, E. K.

"Some Methods for Studying Two-Phase Fuel-Air Mixtures in a Flow."

report submitted for the 8th Intl. Symposium on Combustion,
Pasadena, California, 29 Aug - 2 Sept 1960.

32382
S/124/61/000/012/026/038
D237/D304

117200

AUTHORS: Predvoditelev, A. S., and Sundukov, I. N.

TITLE: On flame propagation in two-phase mixtures

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 12, 1961,
100, abstract 12B699 (Tr. Odessk. un-ta, Ser.
Fiz. no., 1960, 150, no. 7, 45-54)

TEXT: The combustion of a two-phase system of vapors and droplets is investigated both theoretically and experimentally. One of the theoretically possible mechanisms of two-phase combustion in the conditions prevailing in the combustion chamber of an engine is considered. Assuming the mode of frontal combustion, the authors generalize complementary information on the formation and motion of combustion front. Experiments were performed in a special burner-atomizer. The percentage of liquid phase was determined from the number and size of droplet marks on the layer of soot deposited on the glass plate. The

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On flame propagation...

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velocity of flame propagation was determined from the angle of the photographed flame jets by means of the formula $g = W \sin \alpha / 2$, where W = mean velocity of the flow of mixture, and α = interior angle of the flame jet. Relationships were obtained of the velocity of flame propagation g and general factor of air excess α for proportions of liquid phase in the total amount of fuel ranging from 0% (homogeneous mixture) to 60%. The experiment shows the strong influence of the presence of a liquid phase in a burning mixture on the velocity of flame propagation. During the theoretical investigation, a series of formulas was obtained for the velocity of propagation of the flame front which was assumed to consist of a front of conflagration and where the ratio of infinitesimal increments of the normal to the surface and of time was taken as the velocity of front propagation for the mean distance between the droplets etc. It is argued that the combustion of a two-phase mixture can be considered as a chemical reaction of the 2nd order with respect to the coefficient of air excess. The possibility is

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S/124/61/000/012/026/038

D237/D304

On flame propagation, ..

shown of the extension of the formulas obtained to the case of turbulent combustion of homogeneous mixtures where the part of the droplets can be played by gas clusters in random motion, and it is noted that detailed knowledge of chemical kinetics is not necessary in this case. *[Abstracter's note: Complete translation.]*

X

Card 3/3

S/081/61/000/023/020/061
B117/B147

AUTHORS: Sundukov, I. N., Chekalin, E. K.

TITLE: Measurement of the mean velocity of sprayed-fuel drops in the flow of a fuel-air mixture

PERIODICAL: Referativny zhurnal. Khimiya, no. 23, 1961, 267, abstract 23169 (Tr. Odessk. un-ta, Ser. fiz. n. v. 150, no. 7, 1960, 55-64

TEXT: Methods of quantitative measurement of the liquid phase in the flow of a two- phase mixture, the measurement of distribution of drops according to size, and the determination of the total surface of drops by the method of light scatter were studied. Results of experiments made with B-70 (B-70) gasoline are given. [Abstracter's note: Complete translation.]

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31290
S/124/61/000/010/025/056
D251/D301

117350

AUTHORS: Chekalin, E.K. and Sundukov, I.N.

TITLE: Forced ignition of a current of a two-phase fuel-air mixture by an incandescent body

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 10, 1961, 81, abstract 10 B5'6 (Pr. Odes'k, un-tu. Ser. fiz. n., Tr. Odessk. un-ta, Ser. fiz. n., 1960, 150, no. 7, 66-73)

TEXT: The influence is considered of the parameters of flow of a two-phase mixture on the temperature of ignition by an incandescent body. The investigation was carried out on a special burner which permits variation of the ratio between the liquid and gaseous phases of the fuel, the dimension and velocity of the droplets in the stream. Tests were carried out with the coefficient of air excess equal to 0.56 and the velocity of the current of two-phase mixture equal to 16 m/sec. The igniter had the nature of a

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Forced ignition of a current...

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S/124/61/000/010/025/056
D251/D301

nichrome cylinder 3 mm in diameter and 15 mm long. It is observed that the temperature of ignition of the mixture depends on the ratio between the liquid and gaseous phases of the fuel and on the dimensions and velocity of the droplets. The corresponding dependence relationships are established. [Abstracter's note: Complete translation]

Card 2/2

f

ACC NR: AT7000294

SOURCE CODE: UR/3142/60/150/007/0045/0054

AUTHOR: Predvoditelev, A. S.; Sundukov, I. N.

ORG: None

TITLE: Flame propagation in two-phase mixtures

SOURCE: Odessa. Universitet. Trudy, v. 150. Seriya fizicheskikh nauk, no. 7, 1960. Voprosy ispareniya i goreniya v dispersnom vide (Problems of evaporation and combustion in the dispersed state), 45-54

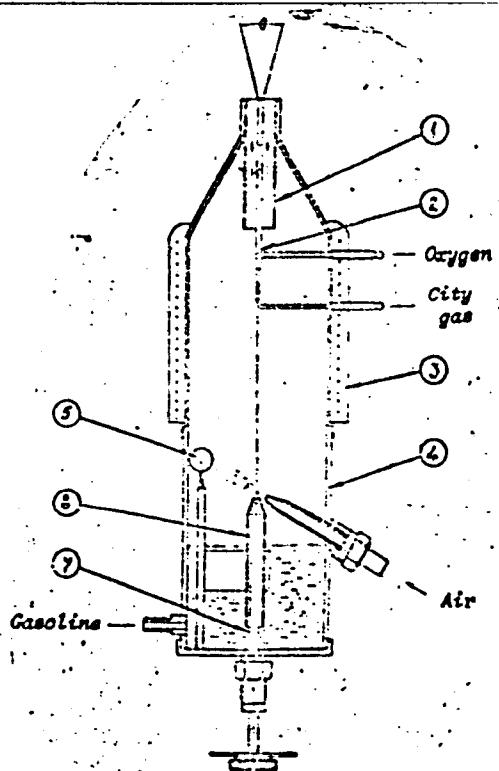
TOPIC TAGS: flame propagation, combustion kinetics, combustion chamber

ABSTRACT: The authors discuss one of the possible concepts of combustion of two-phase mixtures as a basis for a theoretical explanation of phenomena which take place in engine combustion chambers. Ignition of two-phase mixtures was studied with the help of the special vaporizing injection precombustion unit shown in the figure. Gasoline injected through atomizer 6 is directed by a jet of air against spherical deflector 5 to produce a finer fuel spray. The air and atomized fuel are mixed and fed to spray burner 1 13.3 mm in diameter. There the air is continuously ignited by gas-oxygen ignition source 2. Needle valve 7 is used for fuel flow regulation. Electric heater 3 surrounding the mixing chamber is used to control the amount of liquid phase in the mixture from 60% to zero. The lower section of the precombustion unit is made from

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ACC NR: AT7000294

plexiglass and graduated to show the amount of fuel consumed in a unit of time. A special device was used for determining the ratio of liquid phase to the total quantity of gasoline in the mixture with an error of 12%. The rate of flame propagation was determined from the apex angle θ microscopically measured on a considerable number of photographs, according to the formula $g=W\sin(\theta/2)$ where W is the average velocity of the mixture and g is the rate of motion of the flame. Formulas are derived for g in terms of time, temperature, distance between the drops in the fuel mixture and the surface area of the fuel particles.



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ACC NR: AT7000294

These formulas may be extended to turbulent combustion of homogeneous mixtures.
Orig. art. has: 3 figures, 13 formulas.

SUB CODE: 21/ SUBM DATE: None

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ACC NR: AT7000295

SOURCE CODE: UR/3142/60/150/007/0065/0073

AUTHOR: Chekalin, E. K.; Sundukov, I. N.

ORG: None

TITLE: Forced ignition of a stream of two-phase fuel-air mixture by an incandescent body

SOURCE: Odessa. Universitet. Trudy, v. 150. Seriya fizicheskikh nauk, no. 7, 1960. Voprosy ispareniya i goreniya v dispersnom vide (Problems of evaporation and combustion in the dispersed state), 65-73

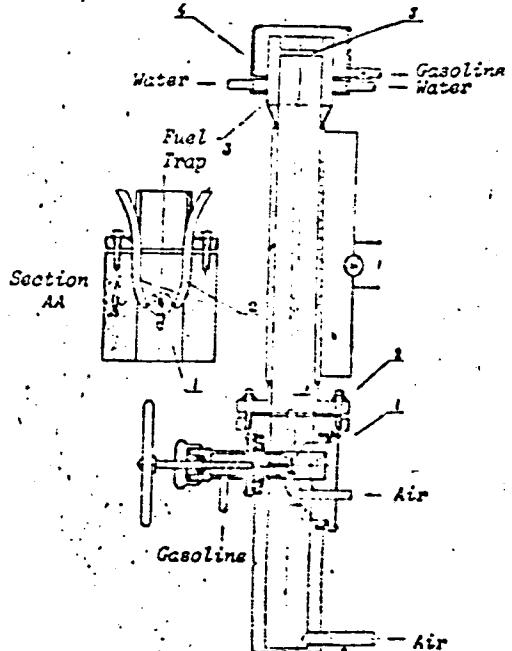
TOPIC TAGS: combustion kinetics, fuel ignition, liquid fuel, flow analysis

ABSTRACT: The authors study the temperature of forced ignition by an incandescent body as a function of various flow parameters of a two-phase mixture. A mixture with controllable parameters was produced by the special precombustion unit shown in the figure. This installation consists of a tube 20 mm in diameter closed at the lower end and made in two sections. The main air introduced at the bottom end perpendicular to the longitudinal axis determines the composition of the fuel-air mixture. This air moves upward washing over cylinder 1 10 mm in diameter and two tubes 2 as shown in section AA. After passing the cylinder, the air stream reaches the upper half of the precombustion unit and leaves the nozzle in the form of a cylindrical jet. Cylinder

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1 is an atomizer controlled by a needle valve. The fuel is atomized by the upper air jet and fed into the main air stream. Above cylinder 1 the fuel is partially mixed with the main air stream and partially settles on the inner walls of the upper half of the tube to form a liquid film which is moved upward by the air stream. The part of the fuel remaining in this film must be taken into account when calculating the composition of the two-phase mixture outside of the precombustion unit. This is done by placing annular slit 5 in the path of the film to connect the inner cavity of the precombustion unit with "fuel trap" 3. The liquid film is caught in this trap and sucked back into the flow in the lower part of the unit. In the case of extremely rich mixtures, a second



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fuel trap 4 made from plexiglass in the form of an annular vessel around the precombustion tube catches the excess fuel which is measured to correct the fuel concentration in the jet. The temperature of forced ignition was measured as a function of the ratio between the liquid and gaseous phases of the fuel, the average size and total area of the drop in a unit of flow and the average velocity of the drops in the stream. The results show that the temperature of forced ignition by an incandescent body in a stream of vaporized complex fuel is chiefly dependent on the velocity and average dimensions of the fuel drops. Orig. art. has: 4 figures, 1 table.

SUB CODE: 21JC/SUBM DATE: None/ ~~CRF~~ ~~0000001~~/ OTH REF: ~~002-003~~

Card 3/3

SUNDUKOV, N.A., kandidat pedagogicheskikh nauk; TUCHNIN, N.P., kandidat pedagogicheskikh nauk; BULATOVA, N.P., redaktor; TRESTNIKOV, V.N. redaktor; TUSHKEVICH, A.V., tekhnicheskiy redaktor.

[Work in physics and engineering outside class] Vneklassnaya rabota po fizike i tekhnike. Pod red. N.P. Bulatova. Moskva, 1955. 138 p.
(MLRA 8:9)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut teorii i istorii pedagogiki.
(Physics--Study and teaching)

SUNDUKOV, N.A.; SHCHUKIN, S.V.; BELOVA, M.L., redaktor; GARNIK, V.P.,
tekhnicheskiy redaktor

[Experience with teaching general science in rural schools; a collection of articles] Opyt politekhnicheskogo obucheniia v sel'skoi shkole; sbornik statei. Pod red. S.V. Shchukina. Moskva, 1956 325 p.
(MIRA 10:1)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut teorii i istorii pedagogiki.
(Technical education)

BULATOV, N.P.; SUNDUKOV, N.A.; SKATKIN, M.N., red.; KOPTEKOVA, L.A.,
red.; LIAUT, V.G., tekhn.red.

[Technical instruction in a city school] Opyt politekhnicheskogo obucheniia v gorodskoi shkole. Pod red. M.N.Skatkina.
Moskva, Izd-vo Akad.pedagog.nauk RSFSR, 1959. 164 p.

(MIRA 12:10)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut
metodov obucheniya. 2. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Skatkin).

(Technical education)

SUNDUKOV, V. A. Cand Med Sci -- (diss) "Data on medicolegal diagnosis⁽⁻⁻⁾ of acute
poisoning with the ~~gas~~⁷¹⁰ of multisulferous petroleum" 'Astfakhan', 1957. 11 pp 19 cm.
(Min of Health RSFSR. Stalingrad State Med Inst), 100 copies (KL, 13-57, 101)

KIY, V. [Kyi, V.], starshiy nauchnyy sotrudnik; SUNDUKOV, Yu., starshiy nauchnyy sotrudnik

Bioelectric stimulation. Nauka i zhyttia 12 no.7:42 J1 '62.
(MIRA 16:1)

1. Vychislitel'nyy chentr AN UkrSSR.
(Electrophysiology) (Electrotherapeutics)

38332 SUNDUKOVA, A. A., TRVIS, F. V., AND KLEBANOVA, A. A.

K voprosy o mekhanizme deystviya streptomitsina. Problemy tuberkuleza, 1949,
No 6, s. 48-50

SUNDUKOVA, I.P.; IL'IN, K.G.; VAINA, T.F.

Total solubility in the ternary system LiCl - Li₂SO₄ - H₂O.

Izv. vys. ucheb. zav.; khim. i khim. tekhn. 1980, 364, 104.
(USSR 1980)

• Determination of solubility limits of LiCl and Li₂SO₄ in water,
calculated according to measured densities.

SUNDUK'YAN, G.S.; BOYARINOV, A.K., retsenzent; STARIKOV, A.Ya., retsensent;
~~SYEDCHOV~~, A.G., redaktor; TSAPLYAYEVA, Z.S., redaktor; LABUS, G.A.,
tekhnicheskiy redaktor

[Warehouse economy and principles of storing crude hides and furs]
Skladskoe khozisistvo i osnovy khraneniia zhivotnovodcheskogo syr'ia
i pushniny. Moskva, Gos. izd-vo tekhn. i ekon. lit-ry po voprosam
zagotovok, 1953. 275 p. (MLRA 10:1)
(Hides and skins--Storage)

BLYUMENTAL', Samuil Yefimovich; SUMDUK'YAN, Grigoriy Stepanovich;
SIDOROV, A.G., redaktor; KIRIVYAKIN, B.I., redaktor;
GOLUBKOVA, L.A., tekhnredaktor

[Manual for officials in charge of purchases of unprocessed
livestock products and furs] Spravochnik zagotovitelia
zhivotnovodcheskogo syr'ia i pushniny. Izd. 2-oe, perer. Pod
red. A.G. Sidorova. Moskva, Izd-vo tekhn. i ekon. lit-ry po
voprosam zagotovok, 1956. 367 p. (MLRA 10:4)
(Fur) (Hides and skins)

SUNDUK'YAN, Grigoriy Stepanovich; BELOV, Konstantin Aleksandrovich; BLYUMENTAL', Samuil Yefimovich [deceased]; KRYUCHIKOV, S.M., red.; PAVLOVA, A.S., red. izd-va; POMICHEV, P.M., tekhn. red.

[Manual on the procurement of raw animal products and pelts] Posobie dlja zagotovitelja zhivotnovodcheskogo syr'ja i pushniny. Moskva, Izd-vo TSentrosoiuza, 1961. 299 p. (MIRA 14:11)
(Animal products)

KHAVKUNOV, P.Ya.; SUNDUK'YAN, P.S.

Role of the slaughtering stations and slaughtering platforms
in the improvement of the quality of raw leather. Kozh.-ctuv
prom. 6 no.4:10-13 Ap'64. (MIRA 17:5)

GOLOVIN, A.A.; KARASEV, K.A.; SUNQYREV, I.A.

Some remarks on the processing of "iron hat" type ores by cyanidation.
Sbor. nauch. trud. Ural. politekh. inst. no.134:93-97 '63.
(MIRA 17:1)

SUNEC, Gordana, inz.

Cleaning of waste waters in the "Ciba" Factory. Kem ind 9 no.12:
S-132 D '60.

1. "Pliva", Zagreb; clan Redakcionog odbora, "Sigurnost u pogonu!"

SUNGAILE, Yu. Ya., and BIYEZIN, A. P., (Prof)--Riga

"Treatment of Chemical Burns of Esophagus in Children."

Report submitted for the 27th Congress of Surgeons of the USSR, Moscow,
23-28 May 1960.

SUNGAL, M.M.

Functional relationship between the average cost of electric power delivered to consumers. Nauch. dokl. vys. shkoly; energ. no.1:33-40 '58. (MIRA 11:10)

1. Rekomendovano Latviyskim gosudarstvennym universitetom.
(Electric power distribution)

SUNGARSKI, St.

Determination of discharge moduli and variation coefficients in
the Topolnitsa River Valley. Khidro i meteorolog no.5:35-42
'62.

SUNGARSKI, Stefan, inzh.

Hydrologic characteristics of the Topolnitsa River. Khidrotekh i
melior 7 no.8:246-248 '62.

SUNGARSKI, Stefan At.

Rainfall in the valley of Topolnitsa River up to the village
of Mukhovo. Khidro i meteorolog 5 45-51 '63.

AUTHOR: Sungatullin, Ya. G. (Eng.). SOV/97-58-7-7/10

TITLE: Results From Investigations of Pre-Cast and Pre-Cast-Monolithic Floor Slabs from Keramzit-Concrete, Reinforced With Pre-Stressed Reinforced Concrete Elements.
(Nekotoryye rezul'taty issledovaniya sbornykh i sbornomonolitnykh perekrytiy iz keramzitobetona, armirovannykh predvaritel'no napryazhennymi zhelezobetonnymi elementami).

PERIODICAL: Beton i Zhelezobeton, 1958, Nr. 7. pp. 270 - 273. (USSR).

ABSTRACT: In 1957 two series of the above-mentioned slabs, with a span of 3.6 m, were investigated in the Laboratory for Reinforced Concrete Constructions for Housing Purposes of the Scientific Research Institute for Concrete and Reinforced Concrete, ASiA of USSR (laboratoriya zhelezobeton-nykh konstruktsiy zhilykh i grazhdanskikh zdaniy Nauchno-issledovatel'skogo instituta betona i zhelezobetona ASiA SSSR). The slabs of the first series KP-3 and KP-4 were made from Keramzit-concrete with strength of 80 - 85 kg/cm², reinforced with three pre-stressed reinforced concrete elements 50 x 50 mm in cross section, positioned on edge. Types of slab of the second series KP-5 and KP-6 were made partly pre-cast monolithic slab with pre-stressed reinforced concrete slabs

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SOV/97-58-7-7/10

Results From Investigations of Pre-Cast and Pre-Cast-Monolithic
Floor Slabs from Keramzit-Concrete, Reinforced With Pre-Stressed
Reinforced Concrete Elements.

30 x 200 mm in cross section which also perform the function of formwork (see Table 1). The mix of the Keramzit-concrete was 1:2.3:5.35 and water/cement ratio = 0.76; 220 kg/m³ of cement Mk 400 were used. Concrete for pre-stressed reinforced concrete elements was of the mix 1:1.3:2.4, water/cement ratio = 0.4; 350 kg/m³ of cement Mk 600 were used. Table 1 gives technical data for various materials used. Fig.2 illustrates pre-stressing of reinforced concrete elements, and checking the value of contraction of the reinforcement. From 4 slabs investigated, 2 (KP-4 and KP-6) were tested to crushing point, and 2 (KP-3 and KP-5) to load exceeding the calculated by 20 - 40%. Graph 3 shows that deflection increases up to the point when cracks appear proportionately to the load. With further loading the deflection increases more than three times. The cracks appear in pre-stressed reinforced concrete elements when the load reaches the value of 1,176 kg/m². Fig.4 illustrates a graph of deflection of slabs KP-5 and KP-6 in the middle of the span. Tests show deflection of the

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SOV/97-58-7-7/10

Results From Investigations of Pre-Cast and Pre-Cast Monolithic Floor Slabs from Keramzit-Concrete, Reinforced With Pre-Stressed Reinforced Concrete Elements.

slab KP-3 increased by 1.5 mm after 112 days subjection to load of 820 kg/m^3 . Deflection of the slab KP-5 increased by 0.86 mm after 44 days subjection to load of 1060 kg/m^3 . Graph 5 illustrates increasing deflections taken in the middle of the span of slabs KP-3, KP-5 and KP-6. From this graph it can be observed that at the loading of $650 - 750 \text{ kg/m}^2$, Keramzit-concrete has a residual deformation in limits of 3.10^{-5} to $5.4 \cdot 10^{-5}$. Tests showed that the appearance of cracks in the extreme fibres of the tensioned zone is in permissible limits. Graph 6 illustrates deformation slab KP-6 taken at various heights of the cross section. Evaluation of economical advantages of these slabs is discussed in detail. There are 6 Figures and 3 Tables.

1. Construction materials—Analysis 2. Reinforced concrete—
Properties 3. Concrete—Properties 4. Construction
materials—Test results

Card 3/3

SUNGATULLIN, Ya.G., inzh.

Study of the combined functioning of prestressed reinforced concrete elements and kramzit concrete. Trudy NII prom. zdan. i soor. no.3:43-71 '70. (MIRA 15:1)
(Precast concrete construction)

SUNGATULLIN, Ya.G., inzh.

Elasticity of keramzit concrete functioning under connected
deformations. Trudy NII prom. zdan. i soor. no.3:72-80
'60. (MIRA 15:1)
(Lightweight concrete)

SUNGATULLIN, Ya. G.

Cand Tech Sci - (diss) "Experimental study of the joint performance of pre-stressed reinforced concrete elements containing ceramic-concrete." Moscow, 1961. 20 pp; (Academy of Construction and Architecture USSR, Central Scientific Research Inst of Construction Designs); 150 copies; price not given; (KL, 6-61 sup, 226)

SUNGATULLIN, Ya.G., inzh.; ZOLOTUKHIN, V.G., inzh.; DOLINSKIY, N.V., inzh.

Flat slabs for floors and attic roofs made of lightweight
concrete. Bet. 1 zhel.-bet. no.11:504-507 N '61. (MIPA 16:8)

(Concrete slabs)

SUNGATULLIN, Ya.G., kand.tekhn.nauk

Continuous prestressed floor slabs made of keramzit concrete.
Bet.i zhela-bet. 9 no. 5:199-204 My '63. (MIRA 16:6)
(Concrete slabs--Testing) (lightweight concrete)

SUNGATULLIN, Ya.G.; PONOMAREVA, V.I.

Rigidity of prestressed cellular concrete tile roofing under
lasting stress. Prom.stroi. 41 no.9:31-33 S '63. (MIRA 16:11)

S. M. Sungurov
SUNGUROV, A.M.

Studies of deep structure of the Pitnyak region and its oil- and
gas-bearing potential based on geophysical prospecting data. Geol.
nefti 2 no.1:40-46 Ja '58. (MIRA 11:1)

1. Treat "Sredazneftegeofizika."
(Uzbek S.S.R.--Petroleum geology)
(Uzbek S.S.R.--Gas, Natural--Geology)

KORNEV, V.A.; LUTSUK, Ye.M.; SUNGUROV, A.M.

Basic characteristics of the tectonics of the Caspian Sea
based on marine geophysical data. Sov.geol. 5 no.12:80-99
D '62. (MIRA 16:2)

1. Nauchno-issledovatel'skaya morskaya geofizicheskaya
ekspeditsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta
geofiziki.
(Caspian Sea region--Geology, Structural)

SUNGUROV, Aleksandr Nikolayevich; KHUNTSKARSKAYA, Ye.N., red.;
KOZLOVSKAYA, M.D., tekhn.red.

[Excursion guide to birds of European Russia; manual for teachers
of secondary schools] Ekskursionnyi opredelitel' ptits Evro-
peiskoi chasti SSSR; posobie dlja uchitelei srednei shkoly.
Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. 233 p.
(MIRA 14:1)

(Birds--Identification)

REF ID: A653920007-8

Authors: Kupriyanov, A. V.; Shmelev, I. N.; Shurukhina, A. A.

Institute: Scientific Research Institute for Ear, Nose, Throat, and Speech Disorders,
Moscow (Naukno-issledovatel'skiy institut po boleznyam ucha, nosa, gola i rechi)

Title: Photoelectric instrument for recording nystagmus.

Periodical: Radiotekhnika i elektronika SSSR, v. 32, no. 11, 1987-1988

Subject: Eye, visual function, reflex activity, nystagmus, ~~optoelectronics~~

Abstract: A description is given of a nystagmograph consisting of a photoelectric sensor mounted in an eyeglass frame and a measuring bridge whose output is fed to a recording device. The frequency characteristic of the output signal from this battery-powered nystagmograph (1-20 cps) permits recording of both fast and slow eye

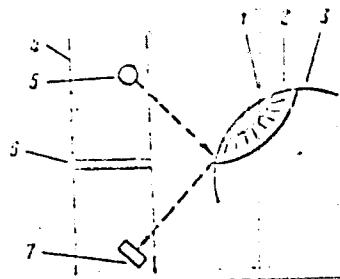


Fig. 1. Diagram of sensor

1 - Pupil; 2 - iris; 3 - sclera; 4 - body of sensor; 5 - bulb; 6 - screen, 7 - photoresistor.

Card 1/2

UDC: 612.846 (018)

1. 34.3-67

ACC NM AP6035345

movements. The sensor, which is in a lightproof compartment, consists of a light source and a SFZ-1 photoresistor (see Fig. 1). The light beam from the sensor is directed so that it strikes the junction of the iris and sclera. Orig. art. has: 4 figures.

SUB CODE: 06 ~~1207~~ SUBM DATE: 22Sep65/ ORIG REF: 008/ OTH REF: 005/ ATD PRESS: 5103

2*(0); 5*(*) 0(2) PHASE I BOOK EXPLOITATION 304/22/5
Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni
D.I. Mendeleyeva

Referat nauchno-issledovatel'skiy reboti: abomle No 2 (3cientific):
Research Abstracts: Collection of Articles No 2) Moscow,
Standartizatsiya, 1926, 119 p., 1,000 copies printed.

Additional Sponsor/Adviser: UZSR. Konsalit standartov, ser. 1
Izmeritel'nyy pribyrov.

Ed.: S. V. Rezhina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers,
and engineers engaged in developing standards, measures, and
degrees for the various industries.

CONTENTS: This volume contains 128 reports on standards of measures
and control. The reports were prepared by scientists of
institutes of the Konsalit standartov, ser. 1 Izmeritel'nyy
pribyrov pri Sovete Ministerov SSSR (Commission on Standardization,
Measures, and Measuring Instruments under the USSR Council of
Ministers). The participating institutes are: VNIIM -
Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni D.I.
Mendeleyeva (All-Union Scientific Research Institute of Metro-
logy named D.I. Mendeleyev in Leningrad); Sverdlovsk branch
of this institute; Vsesoyuznyy nauchno-issledovatel'skiy
institut Kompleksnykh standartov, ser. 1 Izmeritel'nyy pribyrov
(All-Union Scientific Research Institute of Complex
Standards, Measures, and Measuring Instruments), created
from NIMI, Konsalit standartov (Moscow State Institute of
Izmeritel'nyy pribyrov (Moscow State Institute of Measures
and Control) in Leningrad); VNIIM - October 1, 1922); VNIITPMI -
Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tehnicheskikh
issledovaniy i radio-tehnicheskikh imernosti (All-Union Scientific
Research Institute of Physico-Technical and Radio-Engineering
Measurements) in Moscow; NUDIMP - Kharkovskiy Gosudarstvennyy
institut ser. 1 Izmeritel'nyy pribyrov (Kharkov State Institute
of Measures and Measuring Instruments); and NOLIMP - Novosibirskiy
Gosudarstvennyy institut ser. 1 Izmeritel'nyy pribyrov
(Novosibirsk State Institute of Measures and Measuring Instruments).
No personalities are mentioned. There are no references.

Gordov, A.M., I.I. Kirilenko, and E.A. Lapina (VNIIM), Construct-
ing a set of standard tungsten pyrometer lamps calibrated for
color temperature

Ershov, M.M. (VNIIM), Constructing standard thermocouples of
high-purity materials and studying their calibration character-
istics

Kandilba, V. V., V.A. Kovalevskiy, V.Ye. Plinkov, Entym, and G.I.
Solntseva (VNIIM), Designing and Studying an SKM-1 Objective
Spectrometer for the Calibration of Tungsten Pyrometer Lamps

Olynyk, D.M., P.Z. Alyys, N.A. Dolgiv (Deceased), Z.V. Daltse-
va, I.A. Polikarpova, and Yu.P. Palibarg (VNIIM), Designing
set of Mercury Thermometers of a New Type With Value of Division
of 0.01°C in the 0-60°C Temperature Range

Sunkevich, V.I., and F.V. Lepatina (Sverdlovsk Branch of VNIIM),
Investigation of Soviet Tungsten Pyrometer Lamps

Card 11/27

"APPROVED FOR RELEASE: 08/26/2000

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ACC NRI AP6032018

SOURCE CODE: UR/0386/66/004/006/0208/0210

AUTHOR: Kogan, L. M.; Libov, L. D.; Nasledov, D. N.; Nikitina, T. F.; Orayevskiy, I. N.; Strakhovskiy, G. M.; Sungurova, O. A.; Tsarenkov, B. V.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences, SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Continuous coherent radiation of epitaxial diodes of GaAs at 77K

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 4, no. 6, 1966, 208-210

TOPIC TAGS: gallium arsenide, epitaxial growing, pn junction, semiconductor laser, emission spectrum, recombination emission

ABSTRACT: The authors report continuous generation from a GaAs ¹⁵ semiconductor laser with epitaxial pn junction operating with the medium at 77K. The junction was produced by liquid epitaxy by the method of J. Nelson (RCA Rev. v. 24, 603, 1963). The epitaxial layer was doped with tellurium to a density $\sim 3 \times 10^{18} \text{ cm}^{-3}$. A Fabry-Perot type resonator was produced by cleavage along the (110) plane. Emission values of the spectra of the same diode, obtained at different values of the exciting current, in pulsed or continuous operation, show that the maximum of the recombination spectrum shifts toward shorter wavelengths with increasing current; this shift is due to the "dispersal" of the Fermi quasilevels with increasing pump energy, and also to the shift to the long-wave section of the spectrum in the continuous mode, relative to

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ACC NR: AP6032018

the spectrum in the pulsed mode, connected with the constant heating of the active region in the continuous case. This difference between the spectra in the two modes is larger for small currents and decreases on approaching the threshold current. The latter effect is connected with the presence of deep electronic levels with very low state density. Coherent radiation in the continuous mode occurs at a current of 250 mA (612 a/cm^2). The narrow spectral line appearing in this case corresponds most probably to the non-axial "annular" type of resonator oscillations. At 410 mA (1020 a/cm^2), a new system of coherent lines appears, which can be interpreted as corresponding to axial modes of the cavity. The total emission power of the diode for which the spectra are presented is 5 mW at the appearance of the first coherent line and 70 mW at a current 1.5 a. Orig. art. has: 1 figure. {02}

SUB CODE: 20/ SUBM DATE: 13Jun66/ OTH REF: 002/ ATD PRESS: 5084

Card 2/2

24(0): 5(4); 6(2) PHASE I BOOK EXPLOITATION 30V/2215
 Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni
 D.I. Mendeleyeva
 Rezervnyy nauchno-issledovatel'skiy robot: sbornik No. 2 (Scientific
 Research Abstracts: Collection of Articles, Nr. 2). Moscow,
 Standardiz. i standartiz. 1975. 1,600 copies printed.
 Additional Sponsored Agency: USSR. Komitet standartov, mer
 i izmeritel'nyy priborov.
 Ed.: S. V. Rezhetova; Tech. Ed.: M. A. Kondrat'yeva.
 PUFOMK. These reports are intended for scientists, researchers, and
 engineers engaged in developing standards, measures, and
 engineering equipment for the machine industries.

Chubarevko, A. M. (VNIIM). On the Accuracy of Conventional Colorimetry for Three Colors and Four Chromaticities in Representations of Colorimeters 111

Rusakov, Ye. M. (VNIIM). Studying Spatial Variation of Color Perception Under the Effect of Eye Adaptation 111

Chubarevko, A. M. (VNIIM). Measuring Variable Values of Light 112

Chubarevko, A. M. (VNIIM). Light Measurements for Fluorescent Lamps 113

Physicochemical Measurements (Rozanova, N. P., Editor, Professor) 115

Chernysh, J. I. (Sverdlovsk Branch of VNIIM). Designing a Potentiometric Apparatus for Measuring pH 115

Aleksandrov, Ye. A., Ye. V. Shvedopalova, and Z. N. Surovtseva (Sverdlovsk Branch of VNIIM). Developing a Quantitative Photoheteromeric Micromethod for the Determination of Phosphorus and Manganese in Cast Iron and Steel 116

SIDOROV, I.N., kand. tekhn. nauk; SUNGUROVA, Z.N.; SHCHUKINA, N.A.

Study of gases in Ural coal deposits and amount of methane emanation
in mines. Trudy Gor.-geol. inst. UFAN SSSR no.31:59-82 '58.
(MIRA 12:9)

(Ural Mountain region--Mine gases)

SUNGUR'YAN, N.

Increasing in number and skills. Pozh.delo 9 no.10:28-29 0
'63. (MIRA 16:12)

1. Predsedatel' soveta Dobrovol'nogo pozharnogo obshchestva
Armyanskoy SSR, Yerevan.

PCHELINA, Ye.A.; SUNI, Ye.E.

Cholangiography and manometry during surgery. *Vest.khir.*
no.1:45-50'63. (MIRA 16:7)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta skoroy pomoshchi imeni prof. I.I.Dzhanelidze (izpolnyayushchiy obyazannosti direktora - doktor med. nauk Ye.G.TSurinova, nauchnyy rukovoditel' prof. A.N.Berkutov).
(BILE DUCTS—SURGERY) (BILE DUCTS—RADIOGRAPHY)

RITZ, Milana, dipl. inz.; SUNIC, Marija, dipl. inz.; FILAJDIC, Mirko, dr.
dipl. inz.

Colorimetric determination of methanol in spirit and brandies.
Kem ind 13 no.4:267-273 Ap '64

1. Biotechnological Section of the Technological Faculty, Zagreb.
2. Member of the Board of Editors, "Kemija u industriji" (for
Filajdic)

SUNIK, U. P.

Dissertation defended for the degree of Doctor of Philological Sciences
at the Institute of Linguistics 1962.

"The Verb in the Tunguso-Manchurian Languages. Morphological Structure and
System of Forms of Verbal Words."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

KUZMINSKIY, A. S., NIKITINA, T. S., ZHURAVSKAYA, E. V., OKSENT'YEVICH, L. A.,
SUNITSA, L. L., and VITUSHKIN, N. I.

M "The Effect of Ionizing Radiations on Crude and Vulcanized Rubbers."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic
Energy, Geneva, 1 - 13 Sep 58.

BREMER, A.Kh.; DEMBROVSKIY, M.A.; DMITRIYEV, L.A.; SUMITSA, L.I.;
HYABUKHIN, Yu.S.

Dose rate field of a cylindrical irradiator containing ^{60}Co
a powerful source of γ -radiation. Probl.fiz.khim. no.2:
132-145 '59. (MIRA 13:?)
(Radiation—Dosage) (Cobalt—Isotopes)

KUZ'MINSKIY, A.S.; RUZER, L.S.; SUNITSA, L.L.; Prinimali uchastiye:
VINOGRADOV, V.V.; VITUSHKIN, N.I.; YEVLAMPIYEV, A.I.; OSIPOV, V.B.

Apparatus with a source of gamma rays of Co^{60} with 16,000 g-equivalent
of radium for radiochemical investigations of crude and vulcanized
rubbers. Kauch. i rez. 20 no.11:8-10 N '61. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Rubber) (Gamma rays)

Ministry of Agriculture as an efficient measure for the improvement of agriculture in the framework of centralized planning.

p. 54) (1970) (internal printed. Vol. 1, no. 6, June 1970. Sarajevo, Yugoslavia)

Monthly Journal of Agricultural Economics (MJE) LC. Vol. 7, no. 1,
February 1975

2. CIA-RDP86-00513R001653920007-8

1. T. S. (Author); J. Janek (Engineer); Sunka, Pavel (Engineer)

2. Magnetic gun with a coaxial magnetic injector for injection of electrons
into a betatron

SOURCE: Slaboproudny obzor, v. 25, no. 6, 1964, 328-335

TOPIC TAGS: space-charge-limited cathode current, electron gun, magnetic injector
for a betatron, acceleration station, betatron, high voltage, electron emission

ABSTRACT: The paper describes the theory and design of a coaxial high-voltage gun for a Czech 15 mev betatron. The purpose of the design was to increase the gamma radiation intensity and to reduce the number of rejects in vacuum acceleration of the electrons. The gun is a combination of a slightly-divergent Pierce gun and a coaxial electrostatic lens which accelerates the electrons up to an energy of 15 mev and which provides the required slight convergence to the beam. The current of the gun can be regulated within the limits 0 to 2×10^{-7} amps/beam, with an approximate beam diameter of 5 mm. Experimental tests indicate

Card 1/2

L 20488-65

ACCESSION NR: AP4039420

ASSOCIATION: Ustav pro fyziku plazmatu ČSIV, Prague (Plasma Physics Institute, CSAV)

SUBMITTED: 03Feb64

ENCL: 29

SUB CODE: EC, NP

NO REF SOV: 000

OTHERS 917

Card 2/2

USSR, U.S.S.R., d.

"10th anniversary of Trinac Ironworks of the Great October Socialist Revolution."

Autumn. Pravda, Sov. Socialistia. Vol. 9, no. 4, Apr. 1959.

Initially listed as European Acquisitions (NSC, 10, Vol. 8, No. 6, Jun 58, Unclassified)

100000

Reprinting samples on automatic loom ATR-100. Tel Aviv, June, 12, No. 4, 1958.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl. 2

SUNKO, D.

Determining the power of fishing boat engines during their life of services. p. 6.
(Gozdarski vestnik, Vol. 9, No. 1, Jan. 1957, Ljubljana, Yugoslavia*)

So: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug. 1957. Uncl.

16

γ -Benzoylacetooctic acid (β, β -dioxo-4-phenylvaleric acid). K. Balenović and D. Sunko (Univ. Zagreb, Yugoslavia). *Monatsh.* 79, 1-3 (1948).—Dehydrobenzoylactic acid (I) suspended in 400 cc. MeOH was treated with 200 cc. 45% KOH, in small portions and with cooling, allowed to stand 18 hrs. at 25°, 3 vols. ice H₂O added, the whole acidified to Congo red at 0°, extd. with Et₂O, the Et₂O ext. dried, the MeOH and Et₂O removed *in vacuo*, the crude residue (20-21 g.) dried over H₂SO₄ in a vacuum desiccator, dissolved in 90 cc. abs. Et₂O, and 100 cc. petr. ether (b. 30-60°) added. On cooling to 0° there was obtained 8-9 g. plates, m. 85-7°. Recrystn. from Et₂O-ether gave BaCH₂COCl₂CO₂H (II), m. 94°, which gave a Bœtius-red color with FeCl₃. II (0.30 g.) was heated 15 min. at 110°, cooled, treated with Et₂O, the Et₂O soln. washed with NaHCO₃ soln., cooled., and the residue sublimed at 20 mm. and 110° to give 0.17 g. BaCH₂CO₂Me, m. 58-9°. II (1 g.) in 10 cc. concd. H₂SO₄ let stand at 0° 10 min., then poured on ice, gave 0.6 g.

$\text{O}(\text{COCH}_2\text{COCH}_2\text{C}_6\text{H}_5)\text{CO}_2\text{H}$ (II), m. 94°, which gave a Bœtius-red color with FeCl₃. II (0.30 g.) was heated 15 min. at 110°, cooled, treated with Et₂O, the Et₂O soln. washed with NaHCO₃ soln., cooled., and the residue sublimed at 20 mm. and 110° to give 0.17 g. BaCH₂CO₂Me, m. 58-9°. II (1 g.) in 10 cc. concd. H₂SO₄ let stand at 0° 10 min., then poured on ice, gave 0.6 g.

Harry L. Yale

SUNKO

Synthesis of α -phthalimidopropionaldehyde. I. Jambrišić and D. Sunko (Foc. nauc. mat. mat., Zagreb, Yugoslavia). *J. Heterocycl. Chem.* 23, 117-8 (1986) (English). Phthalimidopropionyl chloride (15 g.) was reduced with H₂ in 60 ml. boiling xylene with 3 g. of 5% Pd-BaSO₄. After 3 hrs. the reaction had reached 87% completion and come to a standstill; 11.6 g. (90%) of crude α -phthalimidopropionaldehyde was obtained; this, upon recrystn. from Cet., gave colorless needles, m. 118°, raised to 118.5-10° by sublimation at 110-15° at 0.016 mm.; semicarbazone, white prisms, m. 225.5-23°. *Werner Jacobson*

WJ

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YUGO.

3

Preparation of α -arene acid. D. E. Sunko and P. A. ~~Arhie~~
C. I. ~~Arhie~~ ¹⁸ 1969 (X-18534) English.
 $\text{C}_6\text{H}_5\text{CH}_2\text{CPh}_2$ obtained from $\text{C}_6\text{H}_5\text{CO}_2\text{Et}$ by the ~~CH~~
Barbier-Wieland synthesis (C.A. 22, 4515). On dissolving ~~CH~~
300 g. of the hyd. carbon in 3 l. AcOH , adding 156 g. of (1)
 C_6O_2 suspended in 180 ml. H_2O , removing the AcOH in
vacuo, and treating the residue 1 hr. with 3 l. of 10% aq.
 H_2SO_4 (hot on the steam bath), crude solid. $\text{C}_6\text{H}_5\text{CO}_2\text{H}$ seps.
on top of the H_2SO_4 layer; purification through the K salt
gives 131 g. (68%) 11. m. 58-60°. J. F. C. ten Brink

VUGO

The sphingolipides series. III. Preparation of sphingosine by the catalytic reduction of tribenzoylsphingosine. M. Munk-Weinert, D. B. Sutko, and M. Proštenik (Univ. Zagreb, Yugoslavia). J. Org. Chem. 19, 378-80 (1954); cf. C.A. 49, 1734. —Tribenzoylsphingosine (1.1 g.), m. 118-20°, is hydrogenated in 50 cc. EtOH with 200 mg. Adams' PtO₂ catalyst 3 hrs. at 24° and atm. pressure; the filtered soln. is evapd. in *vacuo* to dryness, the residue taken up in ether, and the washed (NaHCO₃, H₂O) ether soln. evapd., giving 72.4% *O,N*-dibenzoylsphingosine (II), m. 99-1°, $[\alpha]_D^{25}$ 21.30° (c 2.34, CHCl₃). From the aq. washings cyclohexanecarboxylic acid, m. 29-30°, is isolated. Heating 300 mg. I with 15 cc. *N* KOH-MeOH 1 hr. at 40° gives 84% *N*-cyclohexanoylsphingosine (III), platelets, m. 115.5-118°. Refluxing 250 mg. I with 5 g. 10% H₂SO₄-MeOH 24 hrs. gives 63.1% *p*-sphingosine (III), m. 84-5°. Refluxing similarly 90 mg. II with 10% H₂SO₄-MeOH gives 97% III, m. 86-7°, $[\alpha]_D^{25}$ -5.1° (c 3.14, CHCl₃). P. E. B.

B1

SANKO, D. E.
SANKO, D. E.

YUGO.

The reaction of α -phthalimidoacid chlorides with substituted sodiummalonates. A method for the preparation of α -amino- α -(β -malonyl)- α -substituted compounds. D. E. Sanko and M. Prešenik (Univ. Zagreb, Yugoslavia). *J. Am. Chem. Soc.* 71, 7-14 (1949) (in English).—Browne's method (C. A. 47, 20, 7-14 (1949)) for the synthesis of ketones was used to prepare α -phthalimido ketones and α -amino ketones. A soln. of 5 g. PhCH₂CH(CO₂Et)₂ in 30 ml. C₆H₆ was added to 0.02 mole of dry NaOEt, then 4.32 g. PhCH₂OH was added, a C₆H₆-EtOH azeotropic distill. off, a soln. of 4.48 g. α -C₆H₅(CO)₂NCH₂COCl (I) in C₆H₆ added to the residue, and the mixt. refluxed 30 min. and poured in 100 ml. ice water acidified with H₂SO₄. The org. layer was sep'd., the aq. layer extd. with C₆H₆, the combined exts. washed with H₂O, dried and evap'd., the residue dissolved in 25 ml. dioxane, and 20 ml. EtOH added to give after scratching 2.4 g. (21.4%) α -C₆H₅(CO)NCH₂CO(CO₂CH₂Ph)CH₂Ph (II), colorless prisms, m. 101-2° (from EtOH-dioxane). To a soln. of 23.2 g. 3,4-dihydro-2H-pyran in 100 ml. C₆H₆ contg. one

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drop H₂O₂ (2.0 g. PbCH₂CH(CO₂H)₂ (III) was added, the mixt. stirred 20 min., 4 g. anhyd. K₂CO₃ added, the mixt. stirred again 20 min., the soln. decanted from inorg. material, evapd. in vacuo below 30°, and the residue dissolved in 100 ml. C₆H₆. This soln. was added to 2.3 g. Na suspended in 20 ml. C₆H₆, stirred until dissolved, a soln. of 21 g. I in 100 ml. C₆H₆ added slowly, let stand 1 hr., 10 ml. AcOH added, refluxed 3.5 hrs., washed with H₂O, evapd., the residue dissolved in 60 ml. EtOH and let stand in cold to give 10.4 g. (36%) α -C₆H₅COCH₂CH₂Ph (IV), m. 110.5° (from EtOH). The same compd. was prep'd. by a 10-hr. hydrogenating I g. II in 50 ml. EtOAc over 1 g. 10% Pt-BaSO₄ at room pressure and temp., evn't. of solvent, and heating 30 min. at 110° is 94.6% yield, evn't. m. 110.1° (from EtOH). A soln. of 14.55 g. C₆H₅CH₂Br in 50 ml. C₆H₆ was added to a soln. prep'd. from 8 g. C₆H₅CO₂Et₂ and NaOEt (from 1.75 g. Na) in 50 ml. C₆H₆, refluxed 12 hrs., 100 ml. H₂O added and acidified with dil. HCl. The org. layer was sep'd., dried, distd. on a ring up to 130°/0.3 mm., a soln. of 15 g. KOH in 12 ml. H₂O added to the residue, hydrolysis effected by shaking, 100 ml. H₂O added, the mixt. acidified with 5N HCl, extd. with Et₂O, evapd., residue crystd. from C₆H₆ to give 8.9 g. (51%) C₆H₅CH₂COH₂ (V), m. 114-15°. A soln. of C₆H₅CH₂COH₂ (R = tetrahydr-2-pyranyl) (prep'd. from 8.56 g. V in the same manner as described for III) was added to 0.04 mole dry NaOEt, then 8.99 g. I in 50 ml. C₆H₆ was added, let stand 2 hrs., 4 drops AcOH added, refluxed 3

(decomp.) (from Et_2O). A mix. of 15 ml. $\text{O}^\text{18}\text{C}\text{H}_2$, $\text{C}_6\text{H}_5\text{CO}_2$, 1.5 g. IV, 2.5 ml. $\text{N}_2\text{H}_4\text{H}_2\text{O}_4$, and 2 g. KOH was heated under reflux for 90 min. at 130° and 2 hrs. at 200° ; cooled, dissolved in Et_2O , dried with sodium sulfate (90 ml.) and with K_2CO_3 , etched with Et_2O , evap. dried, evap., and the residue (0.5 g. oil) treated in EtOH with LiAlH_4 with CO_2 to give the acetate of $\text{PhCH}_2\text{CH}_2\text{C}_6\text{H}_4\text{NH}_2$, m.p. 142.5° (decomp.) (from EtOH), picrate, m.p. 125.6° (from Et_2O then C_6H_6). To a soln. prep. 1. by addn. of 0.64 mmole $\text{PhCH}_2\text{CH}_2\text{C}_6\text{H}_4\text{NH}_2$ (R = tetrahydro-2-pyranyl) in 40 ml. CH_2Cl_2 to 0.01 mmole dry NaOEt a soln. of 0.5 g. $\text{C}_6\text{H}_5\text{CO}_2\text{NCH}_2\text{MeCOCl}$ in 10 ml. C_6H_6 was added slowly below 30° to give, after 6 hr., standing, refluxing for 15 hrs., cooling, washing with H_2O and evap. in vacuo , 18.2 g. of a yellow oil. This, 18.48 g., refluxed 1 hr. with a soln. of 10 g. Grard T reagent and 15 g. Ac_2O in 135 ml. abs. Et_2O , then added to an Ag_2O soln. of 0.4 g. NaOH in 100 ml. H_2O , etched with Et_2O (0.65 g., 50% of monoketone recovered), aq. layer acidified with 100 ml. 12N HCl, let stand 1 hr., ether etched, org. layer dried and evap., yielded 5.23 g. (59%) crude ketone fractions; 2.23 g. of it in 20 ml. C_6H_6 was chromatographed on 20 g. alumina and eluted with 10-ml portions of C_6H_6 . Fractions 3-15 were combined (0.5 g. oil) and converted to the oxime of $\alpha\text{-C}_6\text{H}_4\text{NCH}_2\text{COCH}_2\text{C}_6\text{H}_4\text{Ph}$, m.p. 179-80° (from Et_2O -petr. ether), IR^18 5.31° (δ , 1.03, CHCl_3). B. Gustafson

washed with H_2O , evapd., and 20 ml. EtOH added to the residue to give 3.9 g. $\alpha\text{-C}_6\text{H}_5\text{CO}(\text{CO})\text{NCH}_2\text{CO}(\text{CH}_3)_2\text{Me}$, m. 89-90° (from EtOH); oxime, m. 108-110°. A soln. of 0.5 g. IV, 4 ml. $(\text{HOC}_2\text{H})_2$ and 0.02 g. $\beta\text{-MeC}_6\text{H}_5\text{SO}_3\text{H}$ in 30 ml. PhMe was slowly dried, collecting 10 ml. of distillate during 4 hrs., the residue washed with 2N NaHCO_3 and H_2O , dried and evapd. to give 0.31 g. ethylene ketal of IV, m. 114-115°; analytical sample 0.38 g., m. 123-5.5° (from EtOH). A soln. of 1 g. IV in 10 ml. AcOH was heated with 3 ml. HI (d. 1.00) for 10 hrs. on a steam bath, the solvent evapd. *in vacuo*, the residue dissolved in H_2O and extd. with CHCl_3 , the aq. soln. concd. *in vacuo* and filtered, the filtrate evapd. *in vacuo*, the residue dissolved in abu. EtOH, Et₂O added, the solvent decanted, the dissolution and pptn. of crystals repeated twice, and finally crystd. from abu. EtOH-petr. ether to yield 0.32 g. of colorless needles of $\text{PhCH}_2\text{CH}_2\text{COCH}_2\text{NH}_2\text{HI}$, m. 124-3°. This was dissolved in 1.5 ml. AcOH, 0.32 g. anhyd. NaOAc and 0.4 ml. BrCl was added, heated 10 min. on a steam bath and dild. with 15 ml. H_2O to give 0.29 g. $\text{PhCH}_2\text{CH}_2\text{COCH}_2\text{NH}_2\text{I}$, m. 81.5-7.5° (from EtOH-H₂O 3:1); oxime, m. 151-2° (from C_6H_6). IV (3 g.) was reduced with 1.5 g. LiAlH₄ in 300 ml. EtOH in a Sixlet extractor to give 2.82 g. partly crystall. oil, which gave with $(\text{CO}_2\text{H})_2$ in EtOH soln. the oxalate of $\alpha\text{-C}_6\text{H}_5\text{CH}_2\text{NCH}_2\text{CH}(\text{OH})\text{CH}_2\text{CH}_2\text{Ph}$, m. 173°.

Sunko, D.
Yugoslavia/Organic Chemistry - Synthetic Organic Chemistry, B-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 813

Author: Sunko, D. R. and Vujanovic, N.

Institution: None

Title: 2-hexadecynoic Acid

Original Periodical: Arhiv. kemiju, 1955, Vol 27, No 4, 217-218 (published in English with a Serbo-Croatian summary)

Abstract: To a solution of $C_{12}H_{25}MgBr$ in ether (0.315 moles of $C_{12}H_{25}Br$) are added 0.3 moles of $CH_2 = CBrCH_2Br$; the mixture is refluxed for 4 hours and hydrolyzed with dilute HCl. The yield of 2-bromo-1-pentadecyne (I) is 35%, bp $92^\circ/0.15$ mm, $n_D^{20} = 1.4690$. Thirty-nine grams of I are added (one hour at 140°) to a sample of NH_2Na (from 8.8 gms Na) dissolved in 270 ml of xylene; the mixture is refluxed for 10 hours, after which ice and concentrated HCl are added, and the 1-pentadecyne (II) is extracted with ether. The yield is 49.1%, bp $88^\circ/0.25$ mm, $n_D^{20} = 1.4545$; 13.8 gms of II are added to an ether solution of

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SUNKO, D. E.

Distr: 4E'd

Nature of the intermediates in the S_N1 type reactions of cyclopropylmethyl derivatives. Solvolysis of deuteriated cyclopropylmethylbenzene sulfonates. S. Borčić, Miss M. Nikolić, and D. E. Sunko (Inst. Ruder Bošković, Zagreb, Yugoslavia). *Trans. of Ind. (London)* 1960, 827-8. — The

benzenesulfonates of $CD_3CD_2CHCH_2OH$ (I), RC_2OH ($R =$ cyclopropyl) (II), and RC_2OH (III) were solvolyzed with anhyd. EtOH and anhyd. HOAc and the 1st order rate consts. detd. at 20.0° (benzenesulfonate deriv., $k \times 10^4$ /sec. in EtOH, $k_H/k_D, k \times 10^4$ /sec. in HOAc and k_H/k_D given): I, $6.25 \pm 0.07, 0.99, 2.24 \pm 0.09, 1.00$; II, $4.34 \pm 0.11, 1.42, 1.68 \pm 0.04, 1.34$; III, $6.17 \pm 0.10, —, 2.24 \pm 0.04, —$. If the rate in S_N1 type reactions of cyclopropylmethyl derivs. were detd. by formation of a cyclobutonium ion, this step should involve some rehybridization of the C—H bonds on all methylene C atoms. Thus, solvolysis of the benzene-sulfonate of I should show a kinetic isotope effect comparable with that of II. If, alternatively, a cyclopropylmethyl carbonium ion were formed, with consequent rapid rearrangement to the isomeric classical or nonclassical carbonium ions, then no isotope effect should occur with I. According to the exptl. data, there was no indication of a nonclassical cyclobutonium ion intermediate in the rate-detg. step.

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1-BW(BW)
2-JF(MB)GAGY

BORCIC, S.; BELANIC-LIFOVAC, V.; SUNKI⁰, D.E.

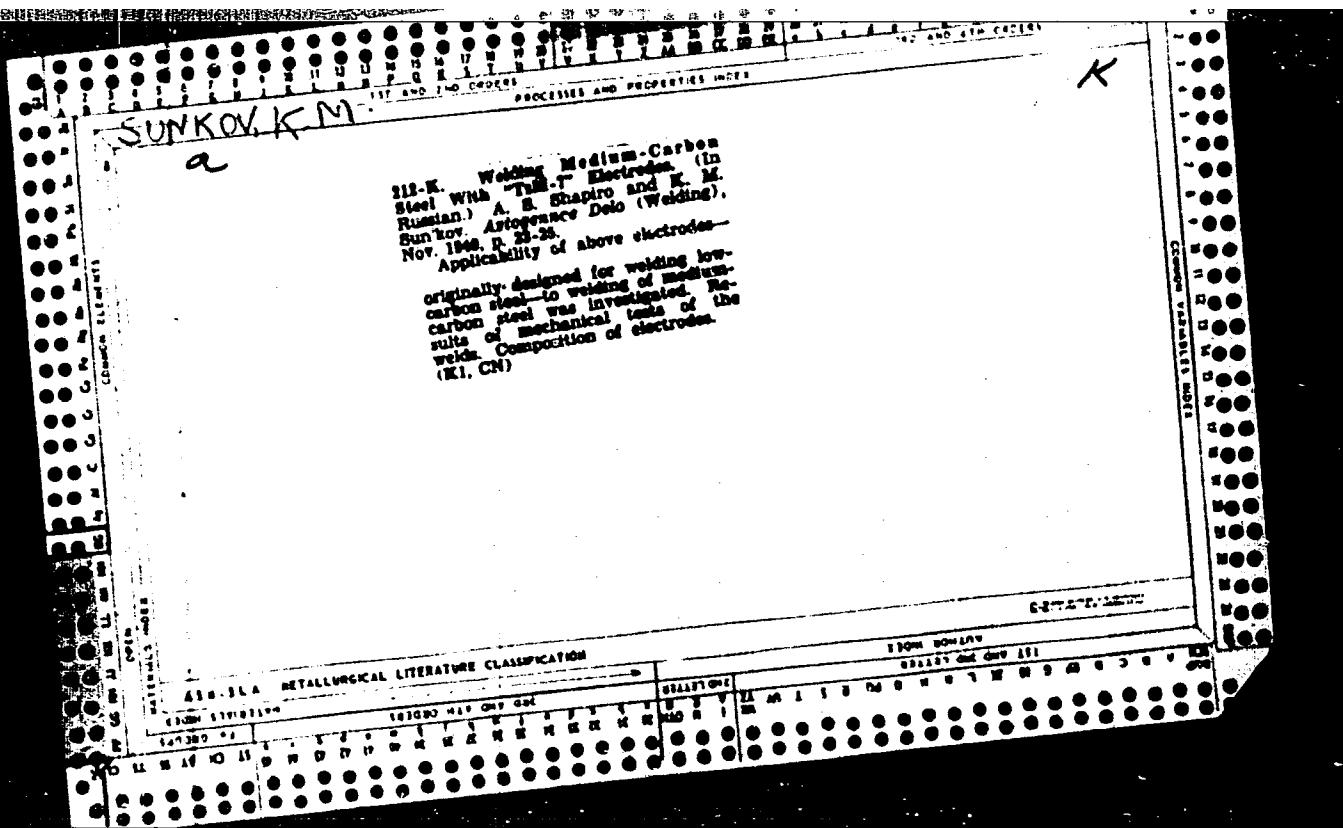
Secondary hydrogen isotopes effects. III. Acetolysis of endo-
and exo-norbornyl-5,6-d₂ p-bromobenzenesulfonates. Croat chem
acta 33 no.1:35-39 1961.

1. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia.

BORGIC, S.; SINKO, D.E.

Secondary hydrogen isotopes effects. V. Internal rearrangement
in the acetolysis of deuterium labeled cyclopropylmethyl benzene-
sulfonates. Croat chem acta 33 no.2:77-81 '61.

1. Institute "Ruder Boskovic", Zagreb, Croatia, Yugoslavia;
Members of the Editorial Board, "Croatica chemica acta, Arhiv
za kemiju"



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A052/A002

Translation from: Referativnyy zhurnal, Elektrotehnika, 1959, No. 15, pp. 175-
176, # 32200

AUTHOR: Suntsev, M.

TITLE: Temperature Control Station on Semiconductors

PERIODICAL: Prom.-ekon. byul. Sovmarkhoz Permsk. ekon. adm. r-na, 1958. No. 7,
p. 23

TEXT: The central temperature control station is designed for keeping
press molds in plastic workshops automatically at a desired temperature. "TOC"
(TOS) thermistors are used in the circuit of the station. The station consists
of the following units: an electronic bridge, a pickup, a logometer, a switch-
ing device consisting of two "ШИ-50/4" (ShI-50/4) and 84 step selectors, a
"МКУ-48" (MKU-48) relay and a power unit. The station is designed to control
40 press molds. The measurement and control are done by the electronic bridge.
The commutation switching of the points to be measured is performed by the step
selectors which connect the points to the electronic bridge; the latter issues

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A052/A002

Temperature Control Station on Semiconductors

through the control unit a command for switching on or off the heating. A visual check of the temperature with the logometer is possible. When the thermister is connected to the input of electronic bridge a bulb flashes showing the press mold whose temperature is measured. There are 2 illustrations.

A.B.K.

Translator's note: This is the full translation of the original Russian abstract.

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Card 2/2

1. SUNTSEVA, T. S.
2. USSR (600)
4. Stock Inspection
7. Seminar for veterinary specialists in food inspection.
Veterinaria 29 No. 12, 1952
9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

SUNTSEVA, T. S.

The instruction on food preservation technology should be revised.
Khokh.tekh.33 no.2:32-34 Ap-Je '56.
(Food--Preservation) (MIRA 9:9)